

includes at least one nucleotide fragment of 347 base pairs.

15. (new) Recombinant plant cytoplasm comprising a plant genome of the genus Cichorium and a recombinant genome of claim 12.

16. (new) A recombinant plant cell comprising the cytoplasm of claim 15.

17. (new) A plant cell of claim 16 further comprising a nucleus comprising a genome of a species selected from the group consisting of Cichorium intybus and Cichorium endivia.

18. (new) A method of producing a plant of the chicory genus or reproducing material of a plant of the chicory genus exhibiting cytoplasmic male sterility, comprising integrating a nucleotide sequence conferring male sterility borne by sunflower orf 522 sequence or by a male-sterility-conferring sequence with at least 50% homology with the sunflower orf 522 sequence.

19. (new) A method of selecting cytoplasmic male sterility in a plant of the genus Chicorium, comprising contacting mitochondrial nucleic acid of the plant with a labeled probe comprising at least 10 nucleotides of the orf 522 sequence.

REMARKS

Claims 1-11 have been replaced with claims 12-19 to more clearly point out the subject matter of the invention. No new matter has been introduced.

35 U.S.C. 101

The claims have been rewritten to avoid non-statutory categories of invention. Accordingly, withdrawal of the rejection under 35 U.S.C. 101 is requested.

35 U.S.C. 112, Second Paragraph

The claims have been rewritten to avoid the objectionable language noted in the rejection. Applicants further note that claim "breadth is not to be equated with indefiniteness." In re Miller, 169 USPQ 597, 600 (CCPA 1970). Accordingly, withdrawal of the rejection under the second paragraph of 35 U.S.C. 112 is requested.

35 U.S.C. 102

The claims were rejected as anticipated by Rambaud (1994). However, Rambaud 1994 (page 67(7), last two paragraphs) indicates that “these results are only preliminary and do not allow us to determine whether the orf 522 is actually responsible for CMS in chicory or if there is, elsewhere in the genome, another gene that would have been created by mitochondrial genome rearrangement and which would be specific for chicory. For the time being, studies concerning mitochondrial genome stability in the protoplast fusion products, characterization of the different cytoplasms used in the selection programs, as well as the presence or absence of the orf 522, its transcription and translation are ongoing.” A reference cannot anticipate a claimed invention unless it would enable one of ordinary skill in the art to carry out the invention. The above quote shows shows that Rambaud 1994 is non-enabling and, at best, constitutes an invitation to carry out further experimentation.

Accordingly, withdrawal of the rejection under 35 U.S.C. 102 is requested.

35 U.S.C. 103

The claims were further rejected as obvious over a combination of Rambaud (1994) with Rambaud (1993) and Laver (1991). As noted above, Rambaud 1994 is non-enabling and does not provide a reasonable degree of certainty that CMS in chicory is conferred by orf 522. Without a reasonable degree of certainty, one of ordinary skill in the art would have had no motivation to turn to secondary references relating to fusion techniques and orf 522.

Accordingly, withdrawal of the rejection under 35 U.S.C. 103 is requested.

Favorable reconsideration and allowance of the claims are requested. In the event that any issues remain, the Examiner is invited to telephone the undersigned with any proposal to expedite prosecution.

Respectfully submitted,

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